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Transport Canada: Supporting GAIN and Other Aviation Safety Initiatives

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Overview

- **Transport Canada-ODAR Key Roles and Responsibilities**
- **Initiatives in Developing Aviation Standards (National & International):**
  - **GAIN (Global Aviation Information Network)**
  - **Glossary for Pilots and ATS Personnel**
  - **CADORS (Civil Aviation Daily Occurrence Reporting System)**
  - **Trinational Accident & Incident Reporting System**
  - **Data Warehouse Pilot**
  - **CICTT (Commercial Aviation Safety Team/International Civil Aviation Organization Common Taxonomy Team)**
  - **FDM (Flight Data Monitoring)**
  - **NASDAC (National Aviation Safety Data Analysis Center) – FAA Aircraft Logical Data Model**

Transport Canada - ODAR: Roles & Responsibilities

- **Identify user needs and provide quality safety information**
- **Develop criteria and standards for collection and management of occurrence data**
- **Collect, analyze and disseminate occurrence data**
- **Develop and maintain data systems and linkages to other data sources (Modal Directorates, Regions, TSB, International)**

Initiative: GAIN

- **Member of Working Group B - Analytical Methods and Tools**

- **Chair of Working Group C - Global Information Sharing Prototypes**

Initiative: Glossary for Pilots and ATS Personnel

- **With NAV CANADA and DND, Transport Canada established and maintains the *Glossary for Pilots and Air Traffic Services Personnel* (first published as the *Pilot-Controller Glossary 1994*)**

- **Canada/U.S./ICAO Commonality in the *Pilot-Controller Glossary* and Definitions – tasked to achieve commonality in the Canadian *Pilot/Controller Glossary* with the FAA's *Glossary* and ICAO definitions**

Initiative: CADORS

- **Comprehensive review underway:**
  - **New application makes use of web-based technologies and a high end fast SQL server**
    - **Improved internal and external access**
  - **Introduced data quality measures and taxonomies to standardize information being reported and accessed**

Initiative: Tri-National Accident & Incident Reporting System

- **Objective is to maintain a common tri-national (Canada, Mexico, U.S.) Accident/Incident reporting system for tri-national safety reporting purposes (resulted from NAFTA agreement)**
- **Includes common accident and incident definitions along with primary and secondary event categories and definitions**
- **The tri-national format consists of mandatory and optional data elements, most of which are found in existing accident and incident reports used by the three countries**

Initiative: Data Warehouse Pilot

- **Objectives:**
  - **Demonstrate the feasibility of integrating Safety information & the benefits of data warehousing to the department**
  - **Implement a fully functional decision support system to support operational requirements**
  - **Provide quality data to our stakeholders**

Initiative: CICTT

- **Commercial Aviation Safety Team (CAST) and International Civil Aviation Organization (ICAO) Common Taxonomy Team was formed early in 1999**

- **Objective is to develop common terms and definitions to facilitate the reporting and classification of occurrences and to enable world-wide coordination and focus of common safety agendas**

Initiative: CICTT (cont'd)

- **Team Composition includes: international governments and agencies, civil aviation authorities, international safety boards, manufacturers and associations**

- **Standards in Development:**
  - **Phases of flight (*near final*)**
  - **Accident Categories (*near final*)**
  - **Incident Categories (*near final*)**
  - **Aircraft Logical Data Model**

Initiative: FDM

- **Canadian equivalent to FOQA (Flight Operational Quality Assurance)**
- **Transportation Development Centre at TC is encouraging airlines to voluntarily implement the program**
  - **Data from the Digital Flight Data Recorder or Quick Access Recorder is stored**
  - **When the aircraft lands, data is transferred to a Ground Data Analysis and Reply System (GDRAS) for off-line analysis**
  - **When data is gathered for a prolonged period, the systems can also do trend analysis**

Initiative: NASDAC - FAA (lead) Aircraft Logical Data Model & Registry

- **Data registry: central directory of data standards accessible via a web browser**
- **Objectives: promote common lists of standards (taxonomies) and to reduce costs associated with maintaining and integrating aviation data worldwide**
- **Initial candidates for standardization include:**
  - **Make/model/serial number of aircraft**
  - **Phases of flight**
  - **Causal factors of accidents/incidents**
- **TC Working Group, direct collaboration with NASDAC, beginning September 2000**